WEST

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L2: Entry 2 of 7 File: DWPI Nov 7, 1990

DERWENT-ACC-NO: 1991-308259
DERWENT-WEEK: 199142

TITLE: Feldspar prodn. from aluminosilicate(s) - comprises treatment with acidic culture of aspergillus niger, rhizopus arrhizus or penicillium chrysogenum, with storing and heating

INVENTOR: AVAKYAN, Z A; KARAVAIKO, G I ; KORENEVSKI, A A

PATENT-ASSIGNEE:

ASSIGNEE	CODE
AS MICROBIOL INST	ASMIR
MINERAL RAW MATL RES INS	MINER

PRIORITY-DATA: 1988SU-4628674 (December 30, 1988)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
SU 1604843 A	November 7, 1990		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
SU 1604843A	December 30, 1988	1988SU-4628674	

INT-CL (IPC): C12N 1/14; C12R 1/68; C22B 3/00

ABSTRACTED-PUB-NO: SU 1604843A

BASIC-ABSTRACT:

Feldspar is produced from alumino-silicates more efficiently by treating the material with culture liq. of Aspergillus niger, Rhizopus arrhizus or Penicillium chrysogenum, of pH 1.5-2.5, at solid:liq. ratio of 1:10-20, respectively, for 0.5-3 hours at 50-90 deg. C, with stirring. Subsequent magnetic sepn. yields the feldspar concentrate contg. 0.21-0.3% Fe oxides.

USE/ADVANTAGE - Yield of prod. contg. up to 0.3% Fe oxides is increased to 53-61%. Used in biotechnology, and it can be of use in prodn. of ceramics and glass. Bul.41/7.11.90

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: FELDSPAR PRODUCE ALUMINOSILICATE COMPRISE TREAT ACIDIC CULTURE ASPERGILLUS NIGER RHIZOPUS ARRHIZUS PENICILLIUM CHRYSOGENUM STORAGE HEAT

DERWENT-CLASS: D16 L01 L02

CPI-CODES: D05-H; L02-G12;

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L12: Entry 4 of 4 File: DWPI

DERWENT-ACC-NO: 1971-27096S
DERWENT-WEEK: 197116

TITLE: Acid stable lactase

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BAXTER LAB INC	BAXT

PRIORITY-DATA: 1969US-0812347 (April 1, 1969)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
FR 2042244 A			000	
CA 941771 A	February 12, 1974		000	
GB 1306751 A			000	
JP 74024234 B	June 21, 1974		000	
US 3620924 A			000	

INT-CL (IPC): C07G 7/00; C12D 13/00

ABSTRACTED-PUB-NO: FR 2042244A
BASIC-ABSTRACT:

Lactase, stable and active in acid medium is obtained by aerobic fermentation using Aspergillus niger. Product is extracted with water and adsorbed on to hydrate aluminium silicate (pref. bentonite or kaolin) at pH 3-6 (pref. 4). Silicate washed with acetone/water mixture contng. approx. 40-50% acetone and lactase liberated by adjusting pH to about 7-8 with aq. alkali (pref. NH3). Colour of lactase may be improved by treatment with Ca(OH)2. Used as food supplement for people deficient in natural lactase.

TITLE-TERMS: ACID STABILISED LACTASE

DERWENT-CLASS: D13 D16

CPI-CODES: D03-H01; D05-C03;

WEST

End of Result Set

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L3: Entry 2 of 2 File: DWPI Sep 2, 1987

DERWENT-ACC-NO: 1988-021880
DERWENT-WEEK: 198804

TITLE: Leaching chemically resistant metal silicate or oxide - with fermentation broth obtd. by culturing thiobacillus or ferrobacillus on an oxidn. substrate contg. sulphur

INVENTOR: BECKER, S; BULLMANN, M ; DIETZE, H J ; ISKE, U

PATENT-ASSIGNEE:

ASSIGNEE	CODE
AKAD WISSENSCHAFTEN DDR	DEAK

PRIORITY-DATA: 1985DD-0274868 (April 4, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DD 249155 A	September 2, 1987		004	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DD 249155A	April 4, 1985	1985DD-0274868	

INT-CL (IPC): C22B 3/00; C22B 59/00; C22B 60/02

ABSTRACTED-PUB-NO: DD 249155A

BASIC-ABSTRACT:

In the microbial decomposition of chemically resistant silicate and/or oxidic raw materials contg. metals, e.g. sand or heavy soaps, or of mineral concentrates obtainable from these, e.g. zircon, garnet, ilmenite, hornblende, magnetite, rutile, monazite and disthene, or of difficultly decomposable technical waste and by-prods., using an aq. microbially produced leach soln. contg. active leach components, a fermentation soln. contg. H2SO4, obtd. by using a strain of Thiobacillus and/or Ferrobacillus and an oxidn. substrate contg. S, is contacted with the material to be leached, either during the phase of H2SO4 formation or in an external cycle.

ADVANTAGE - Raw materials with little geochemical mobility of the metal components, and stable crystal structure, can be treated. Valuable metals can be obtd. easily and cheaply from the leached material.

CHOSEN DRAWING: Dwg.0/0

TITLE-TERMS: LEACH CHEMICAL RESISTANCE METAL SILICATE OXIDE FERMENTATION BROTH OBTAIN CULTURE THIOBACILLUS FERROBACILLUS OXIDATION SUBSTRATE CONTAIN SULPHUR

DERWENT-CLASS: D16 K05 M25

CPI-CODES: D05-A04; M25-B;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1678U; 1680U ; 1714U ; 1729U ; 1753U ; 1786U ; 1905U

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1988-009694

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L3: Entry 1 of 2 File: DWPI Feb 28, 1991

DERWENT-ACC-NO: 1991-215984
DERWENT-WEEK: 199130

TITLE: Microbial breakdown of nickel hydro:silicate - comprising leaching with acid aq. medium contg. Thiobacillus ferrooxidans

INVENTOR: GOLDBACH, E; GROTSCHEL, B ; HANSEL, R ; POLLMER, K ; VOLAND, B

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BERGAKAD FREIBERG	FREIN

PRIORITY-DATA: 1989DD-0330980 (July 20, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DD 287532 A	February 28, 1991		000	

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DD 287532A	July 20, 1989	1989DD-0330980	

INT-CL (IPC): C22B 3/18

ABSTRACTED-PUB-NO: DD 287532A
BASIC-ABSTRACT:

In microbial breakdown of Ni hydrosilicates, the hydrosilicate is leached with solns., at pH 0.5-2, contg. Thiobacillus ferrooxidans grown in a medium contg. H2SO4 and Fe(II), and sepd. from this in its growing phase. The leaching soln. contains T. ferrooxidans which has multiplied in 9K medium and has been sepd. from this in its growth phase. The leaching soln. may be tank, batch, dump or in situ leaching. The soln. may be circulated.

USE/ADVANTAGE - The process is esp. for treatment of Ni hydrosilicates with Ni in serpentine binding and in amt. less than 1%. The range of raw materials for Ni recovery is widened. 80-98% Solubilisation of Ni is achieved in 7-20 days.

CHOSEN-DRAWING: Dwg.0/-

TITLE-TERMS: MICROBE BREAKDOWN NICKEL HYDRO SILICATE COMPRISE LEACH ACID AQUEOUS MEDIUM CONTAIN THIOBACILLUS FERROOXIDANS

DERWENT-CLASS: D16 M25

CPI-CODES: D04-A01J; D04-B05; M25-B; M25-G19;

SECONDARY-ACC-NO:
CPI Secondary Accession Numbers: C1991-093788

WEST

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L2: Entry 6 of 7 File: DWPI

DERWENT-ACC-NO: 1973-15438U
DERWENT-WEEK: 197311

TITLE: Treating lactase deficiency - with an active lactase from aspergillus niger

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BAXTER LAB INC	BAXT

PRIORITY-DATA: 1971US-0153423 (June 15, 1971), 1969US-0812348 (April 1, 1969)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 3718739 A			000	

INT-CL (IPC): A61K 19/00

ABSTRACTED-PUB-NO: US 3718739A
BASIC-ABSTRACT:

Lactase deficiency in mammals is treated by oral administration of an amt. of lactase enzyme sufficient to hydrolyse the undigested lactose normally present in the mammal. The lactase enzyme is an acid-active, acid-stable lactase enzyme prepn. prepd. from growth products of a culture of Aspergillus niger by absorption with hydrated aluminium silicate at pH 3-6, followed by release of the enzyme prepn. by adjustment to pH 7-8. The enzyme prepn. is stable at pH 2-9 with at least 90% of its activity at pH 2.5-5.0 and at 37 degrees C and contg. at least 50,000 Lactase Units per g. of enzyme prepn.

TITLE-TERMS: TREAT LACTASE DEFICIENT ACTIVE LACTASE ASPERGILLUS NIGER

DERWENT-CLASS: B04 D16

CPI-CODES: B04-B02C; B12-L09; D05-C03;

CHEMICAL-CODES:

Chemical Indexing M1 *01*
Fragmentation Code
V800 N130 N160 M720 M781 R002 M423 M902

WEST

End of Result Set

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L2: Entry 7 of 7 File: DWPI

DERWENT-ACC-NO: 1972-06028T
DERWENT-WEEK: 197204

TITLE: Lactase - for acid hydrolysis of lactose

PATENT-ASSIGNEE:

ASSIGNEE	CODE
BAXTER LAB INC	BAXT

PRIORITY-DATA: 1969US-0812348 (April 1, 1969), 1971US-0153423 (June 15, 1971)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 3629073 A			000	
CA 940469 A	January 22, 1974		000	
GB 1306752 A			000	

INT-CL (IPC): C12K 1/00

ABSTRACTED-PUB-NO: US 3629073A
BASIC-ABSTRACT:

The lactase prepn. is obtd. from the growth product of a culture of Aspergillus niger by absorption with hydrated Al silicate at pH 3-6, followed by release of the enzyme prepn. by bringing the pH to 7-8. The product is stable at pH 2-9 and 90 per cent of its activity is shown at pH 2.5 - 5.0. The prepn. contains at least 50,000 lactase units per gram. The prepn. is suitable for the hydrolysis of lactose in acid media and can be combined with an edible carrier such as corn starch, talc, Ca3(PO4)2, alginate, for oral ingestion or it may admixed wih baby or animla feeds, to reduce lactase deficiency. It has the advantage that it is not admixed with other enzymes and is active in acid soln.

TITLE-TERMS: LACTASE ACID HYDROLYSIS LACTOSE

DERWENT-CLASS: D13 D16

CPI-CODES: D05-C03;

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS

AB Al2O3 was recovered from clays contg. Al2O3 33.8-36.1, SiO2 46.2-50.1, Fe2O3 0.8-6.3%, and others by leaching with heterotropic acid-producing bacteria in glucose soln. and fungi. Best results were achieved by using a strain of **Aspergillus niger**, which formed oxalic and **citric** acids as metabolic products in **clay** pulp with molasses. The Al recovery was >90% after activating the **clay** at 60.degree. for 1-2 h and leaching at 90.degree. and pH 0.5 for 3-6 h. Al(OH)3 or AlCl3.cntdot.6H2O were pptd. from the pregnant soln. and Al2O3 was prepd. by calcining.

ACCESSION NUMBER: 1986:409777 CAPLUS
DOCUMENT NUMBER: 105:9777
TITLE: Biological leaching of aluminum from clays
AUTHOR(S): Grudev, S.; Grudeva, V.
CORPORATE SOURCE: Dep. Miner. Process., Higher Inst. Min. Geol., Sofia, 11561, Bulg.
SOURCE: Biotechnol. Bioeng. Symp. (1986), 16(Biotechnol. Min. Met.-Refin. Fossil Fuel Process. Ind.), 91-9
CODEN: BIBSBR; ISSN: 0572-6565
DOCUMENT TYPE: Journal
LANGUAGE: English

L8 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2002 ACS

AB A microorganism substrate is adjusted to weakly alk. pH and mixed with .gtoreq.1 of cellulose decompg. bacteria, filamentous fungus, nitrobacter, nodule bacteria, rhizobium, **thiobacillus**, actinomycetaceae, yeast, and pseudomonas to prep. a waste deodorizing agent. The substrate contains .gtoreq.1 of crushed rock. **bentonite**, siliceous white clay, pitchstone, and coals. Thus, Aspergillus oryzae, Nitrosomonas europaea, Nitrobacter agile, **Thiobacillus** thioparus, **Thiobacillus** thiooxidans, Pseudomonas ruhlandii, and Saccharomonospora virides were mixed with charred rice hull and white clay to prep. a deodorizing agent for night soil, wastes, sewage treatment plant etc.

ACCESSION NUMBER: 1984:459658 CAPLUS
DOCUMENT NUMBER: 101:59658
TITLE: Agents for dedorization of wastes
PATENT ASSIGNEE(S): Monma, Yoshimichi, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59022555	A2	19840204	JP 1982-132020	19820730

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
AN 1990:59791 CAPLUS
DN 112:59791
TI The formation of a mixed-layer serpentine-**smectite** structure in kimberlite under the effects of **Thiobacillus** thiooxidans
AU Platonova, N. P.; Eroshchev-Shak, V. A.; Lebedeva, E. V.; Karavaiko, G. I.
CS Inst. Mikrobiol., Moscow, USSR
SO Mikrobiologiya (1989), 58(2), 271-5
CODEN: MIKBA5; ISSN: 0026-3656
DT Journal
LA Russian
CC 53-1 (Mineralogical and Geological Chemistry)
AB The oxidn. of S by **Thiobacillus** thiooxidans at low pH in the presence of ground kimberlite (0.25 mm particle size) intensified rock decompn., esp. serpentinization. Decompn. occurred with active removal of Mg from the rock and the formation of serpentine with **smectite** interlayers. The 2:1 **smectite** has Ca, K, and Na as exchangeable cations. The possible role of bacteria in the weathering of Yakutian kimberlites is discussed.
ST **smectite** interstratification serpentine kimberlite decompn; **thiobacillus** thiooxidans kimberlite serpentinization
IT Kimberlite
RL: RCT (Reactant)
(decompn. of, in presence of Thiobacillus thiooxidans)
IT Serpentine-group minerals
RL: PRP (Properties)
(interstratification compds., with **smectite**, formation of, from kimberlite decompn. in presence of **Thiobacillus** thiooxidans)
IT **Thiobacillus** thiooxidans
(kimberlite decompn. in presence of, mixed-layer serpentine-**smectite** from)
IT **Smectite**-group minerals
RL: PRP (Properties)
(interstratification compds., with serpentine, from kimberlite decompn. in presence of **Thiobacillus** thiooxidans)

(FILE 'HOME' ENTERED AT 10:47:15 ON 30 JUL 2002)

FILE 'CAPLUS' ENTERED AT 10:51:18 ON 30 JUL 2002

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L1             1 S CLAY (P) ASPERGILLIS NIGER
L2            50 S CLAY (P) ASPERGILLUS NIGER
L3             6 S CLAY (P) ASPERGILLUS NIGER(P)CITRIC
L4             0 S CLAY (P) ASPERGILLUS NIGER AND GROUDEV
L5             0 S (CLAY (P) ASPERGILLUS NIGER) AND GROUDEV
L6             2 S (CLAY (P) ASPERGILLUS NIGER) AND (THIOBACILLUS)
L7             2 S  SMECTITE (P)(ASPERGILLUS NIGER OR THIOBACILLUS)
L8            32 S  (PALYGORSKITE OR BENTONITE)(P)(ASPERGILLUS NIGER OR THIOBACI
L9        593878 S ACIVATED OR ACTIVATION
L10            1 S L8 AND L9
L11        31515 S DECOLOR?
L12            0 S L11 AND L8
L13        67348 S ACTIVATING
L14            0 S L13 AND L8
```

Set Name side by side	Query	Hit Count	Set Name result set
DB=DWPI; PLUR=YES; OP=ADJ			
L12	silicate same aspergillus same (clay or bentonite or montmorillonite)	4	L12
DB=USPT; PLUR=YES; OP=ADJ			
L11	silicate same microorganism same (clay or bentonote or montmorillonite)thiobacillus	0	L11
DB=DWPI; PLUR=YES; OP=ADJ			
L10	silicate same microorganism same (clay or bentonote or montmorillonite)thiobacillus	0	L10
L9	silicate same (bacteriS or fungi) same (clay or bentonote or montmorillonite)thiobacillus	0	L9
L8	silicate same thiobacillus same (clay or bentonote or montmorillonite)thiobacillus	0	L8
L7	silicate same aspergillus same (clay or bentonote or montmorillonite)thiobacillus	0	L7
L6	silicate same aspergillus (clay or bentonote or montmorillonite)thiobacillus	0	L6
L5	silicate with aspergillus (clay or bentonote or montmorillonite)thiobacillus	0	L5
L4	silicate with thiobacillus and (clay or bentonote or montmorillonite)	0	L4
L3	silicate with thiobacillus	2	L3
L2	silicate with aspergillus	7	L2
L1	silicate with (microbe or microorganism or microbe or bacteria or bacteriaum or fungi)	174	L1

END OF SEARCH HISTORY